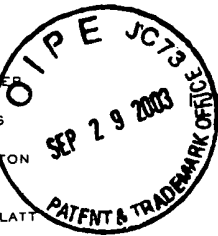


A. SIDNEY KATZ*
RICHARD L. WOOD*
JEROLD B. SCHNAYER
ERIC C. COHEN
JOSEPH R. MARCUS
GERALD S. SCHUR
GERALD T. SHEKLETON
JAMES A. SCHEER
DANIEL R. CHERRY
ROBERT B. BREISBLATT
JAMES P. WHITE
R. MARK HALLIGAN
HARTWELL P. MORSE, III
EDWARD P. GAMSON, Ph.D.
KARA E.F. CENAR
KATHLEEN A. RHEINTGEN
THOMAS W. TOLPIN*
ELLIOTT C. BANKENDORF
RICHARD W. McLAREN, JR.
JOHN L. AMBROGI
JULIE A. KATZ
JON P. CHRISTENSEN
ERIC D. COHEN
WALTER J. KAWULA, JR.
PHILIP D. SEGREST, JR.
MITCHELL J. WEINSTEIN
LEONARD FRIEDMAN
STEVEN E. FELDMAN
JEFFREY W. SALMON



WELSH & KATZ, LTD.

Attorneys at Law

SOUTH RIVERSIDE PLAZA • 22ND FLOOR
CHICAGO, ILLINOIS 60606-3912

TELEPHONE (312) 655-1500
FACSIMILE (312) 655-1501

www.welshkatz.com

September 24, 2003

THOMAS L. GEMMELL
LOUISE T. WALSH
CHARLES R. KRIKORIAN, Ph.D.
PAUL M. VARGO, Ph.D.
JOSEPH E. CWIK

SHANNON L. NEBOLSKY, Ph.D.
RICHARD J. GURAK
J. ARON CARNAHAN
ERIK B. FLOM, Ph.D.
TERESA D. TAMBOLAS
DANIEL M. GURFINKEL
MICHELE S. KATZ*
NATALIE A. REMIEN
KRISTA M. LEBARON
YOLANDA M. PRICE

OF COUNSEL
LAURIE A. HAYNIE
JAMES J. MYRICK
THOMAS R. VIGIL

DONALD L. WELSH (1925-1998)

* ALSO ADMITTED IN DISTRICT OF COLUMBIA

Commissioner for Patents
P.O. Box 1450
Arlington, VA 22313-1450

Re: Patent Application of Elliot et al.
Serial No. 10/613,828
Filed: July 3, 2003
ANTENNA SYSTEM
Our File No. 7836-90177

Dear Sir:

Enclosed herewith are the following:

1. Transmittal Letter (in duplicate);
2. Information Disclosure Statement (in duplicate);
3. Form PTO-1449 (in duplicate);
4. Nine (9) U. S., Four (4) Foreign, Ten (10) Non-Patent references cited therein;
5. Certificate of Mailing;
6. Postcard.

The Commissioner is hereby authorized to charge any fees which may be required to Deposit Account No. 23-0920. A duplicate copy of this sheet is enclosed.

Very truly yours,

WELSH & KATZ, LTD.


By 
Eric D. Cohen

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as First-Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Arlington, VA 22313-1450, on this date.

Date

9/24/03


Eric D. Cohen,
Reg. No. 38,110

EDC/zlw



Docket: 90177

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Elliot et al.

Group Art Unit:

Serial No.: 10/613,828

Examiner: Not Yet Assigned

For: ANTENNA SYSTEM

Filed: July 3, 2003

Confirmation No. _____

INFORMATION DISCLOSURE STATEMENT

- ☒ 1 Pursuant to 37 CFR 1.97(b)
[within 3 months of filing or prior to 1st Office Action]
- ☐ 2 Certification Pursuant to 37 CFR 1.97(c)
[before Final Office Action or Allowance]
- ☐ 3 Fee Payment Pursuant to 37 CFR 1.97(c)
[before Final Office Action or Allowance]
- ☐ 4 Petition, Certification & Petition Fee Payment Pursuant to 37 CFR 1.97(d)
[before issue fee payment]

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

SIR:

The following are submitted in the above identified application in compliance with 37 CFR 1.97 & 1.98:

- ☒ 5 A list of documents on Form PTO-1449 together with copies of each identified document and a translation or a concise explanation of each non-English language document is enclosed herewith.

This paper is submitted in accordance with:

- ☒ 6 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]
- ☐ 7 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
- ☐ 8 The required certification made in item 11 below; or
- ☐ 9 The \$180.00 fee specified in 37 CFR § 1.17(p) for submission of this Information Disclosure Statement is authorized in item 14 below.
- ☐ 10 37 CFR 1.97(d): [before issue fee payment]; and
- a) This is a petition for consideration of the subject Information Disclosure Statement. The petition fee (\$180.00) required by 37 CFR 1.17(i)(1) is authorized in item 14 below. (Direct this letter to: "Attention PETITIONS EXAMINER" and if applicable include batch locator information: e.g. "Allowed Files, Batch _____, Date of Allowance _____"), and
- b) The required Certification is stated in item 11 below.

☐ 11 Certification

- ☐ 12 Each item of information in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Statement; or
- ☐ 13 No item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the person signing this document after making reasonable inquiry, was known to any individual designated in 37 CFR 1.56(c) more than three (3) months prior to the filing of this Statement.
- ☒ 14 Please charge all applicable fees associated with the submittal of this Information Disclosure Statement to Deposit Account No. 23-0920. An original and one (1) copy of this document are enclosed.

In the judgment of the undersigned, portions of the references may be material to the examination of the pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative importance of any portion of the references or to whether the references are considered "analogous art." This Statement is not a representation that the cited references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or 103. This Information Disclosure Statement shall not be construed as an admission that the statement or cited references are, or are considered to be, material to the patentability under 37 C.F.R. Section 1.97(h).

Respectfully submitted,

WELSH & KATZ, LTD.




Eric D. Cohen
Reg. No. 38,110

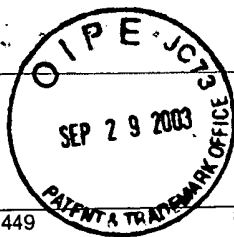
WELSH & KATZ, LTD.
120 South Riverside Plaza
22nd Floor
Chicago, IL 60606
(312) 655-1500
August 6, 2003

CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on this date:

8/24/03
Date


Eric D. Cohen, Esq.
Registration No. 38,110
Attorney for Applicant



Form PTO-1449 (Rev. 8-88)	U.S. Department of Commerce Patent and Trademark Office	Attorney Docket No. 90177	Serial No. 10/613,828
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)		Applicant Elliot et al.	
		Filing Date July 3, 2003	Group No.

U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	4,090,203	05-16-78	Duncan			
	4,129,873	12-12-78	Kennedy			
	5,021,793	06-04-91	Stangel			
	5,361,074	11-01-94	Hansen			
	5,365,234	11-15-94	Lewis			
	6,124,828	09-26-00	Champeau			
	6,140,974	10-31-00	Dalley			
	20001/0006374A1	07-05-01	Erikmats			
	2002/0002065A1	01-03-02	Mesecher			

FOREIGN PATENT DOCUMENTS

Document Number	Date	Country	Class	Subclass	Translation	
					Yes	No
EP-0 583 110 B1	10-08-97	EPO			X	
JP-01170095	06-30-89	Japan (Abstract Only)			X	
JP-11068867	09-29-00	Japan (Abstract Only)			X	
JP-2000224460	02-08-02	Japan (Abstract Only)			X	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	A NEW METHOD TO CANCEL RFI -- THE ADAPTIVE FILTER by R. Bradley (NRAO), C. Barnbaum (STScI) Session 107 - Radio Astronomy and VLBI Instruments - Page 1 of Article from Website - http://www.aas.org/publications/baas/v28n4/aas_189/abs/S107004.html **
	REDUCING THE BURDEN ON NETWORK PLANNERS AND OPERATOR by Mr. Stephen J. Foti, Technical Director of Thales Antennas - Pages 1-5 of Article from Website - http://www.hitech-news.com/HITECHinterview/stephenjfofi.htm **
	INTRODUCTION TO CELLULAR ANTENNAS SUPPRESSOR DUALPOL by EMS Wireless, A Division of EMS Technologies, Inc. - Pages 1-2 of Article from Website - http://www.emswireless.com/English/content/pro_cellintro06.asp **
	CAUSES FOR CO-CHANNEL INTERFERENCE by Allogon Enterprises, Inc. - Available at Article from Website - http://www.crs.ru/project/st_allgon.pdf , dated March 5, 1999 (4 pages)
	LOCAL RF INTERFERENCE CANCELLER, Pages 1-2 of Article from Website - http://www.radiosky.com/cancelit.html **

		ADAPTIVE SIDELOBE CANCELLATION, Page 1 of Article from Website - http://www.aero.org/publications/crosslink/winter2002/05_sidebar3.html **
		Article from Website - http://www.geocities.com/toddermslie/phase_cancellation.htm **
		ADAPTIVE NULLING ANTENNAS FOR MILITARY COMMUNICATIONS by Don J. Hinshilwood and Robert B. Dybdal of The Aerospace Corporation, Pages 1-6 of Article from Website - http://www.aero.org/publications/crosslink/winter2002/05.html **
		ANTENNA BEAM SHAPING TO IMPROVE NETWORK PERFORMANCE - Global Communications by EMS Wireless Technologies, Pages 1-5 of Article from Website - http://globalcomms.evolutionstld.com/features.asp?ID=1067 **
		ANTENNA DESIGN by Wireless Review by Wayne L. Bowman and Tom Thompson, Pages 1-6 of Article from Website http://wirelessreview.com/ar/wireless_antenna_design/index.htm , July 1, 1998
		** Applicants submit that they are aware of this article more than one year prior to the filing of the above-identified patent application.
Examiner	Date Considered	
*Examiner:	Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	